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What is claimed is:

- 1. A composition of matter comprising an antibody specifically reactive with a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1), wherein said antibody is a monoclonal antibody or a $F(ab')_2$, F(ab'), F(ab) fragment or chimeric antibody thereof.
- 2. A composition of matter according to claim 1, wherein said antibody is labeled with a detectable label.
- 3. A composition of matter according to claim 2, wherein said detectable label is a radioactive isotope.
- 4. A composition of matter according to claim 1, wherein said antibody is a humanized antibody.
- 5. A composition of matter according to claim 1, wherein said antibody is selected from the group consisting of MAb 2F8, MAb 4A5, MAb 4E10, MAb 5F12, MAb 4H4, MAb 3C10, or a $F(ab')_2$, F(ab') or F(ab) fragment thereof.
- 6. A composition of matter according to claim 1, wherein said antibody is or a MAb 4A5, $F(ab')_2$, F(ab') or F(ab) fragment thereof.
- 7. A composition of matter comprising an antibody which interferes with the activity of VEGF-D mediated by a VEGF receptor-2, wherein said antibody is a monoclonal antibody, or a $F(ab')_2$, F(ab'), F(ab) fragment or chimeric antibody thereof.
- 8. A composition of matter according to claim 7, wherein said antibody does not interfere with the activity of VEGF mediated by a VEGF receptor-2.

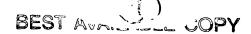
- 9. A composition of matter according to claim 7, wherein said antibody does not bind to VEGF-C.
- 10. A composition of matter according to claim 7, wherein said antibody interferes with the binding of VEGF-D to a VEGF receptor-3.
- 11. A composition of matter according to claim 7, wherein said antibody is a humanized antibody.
- 12. A composition of matter according to claim 7, wherein said antibody is MAb 4A5,or a $F(ab')_2$, F(ab') or F(ab) fragment thereof.
- 13. A method for preparing a monoclonal antibody according to claim 1, comprising the steps of:
- a) immunizing an immunocompetent mammal with an immunogen comprising a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) or fragment thereof;
- b) fusing lymphocytes of the immunized immunocompetent mammal with myeloma cells to form hybridoma cells;
- c) screening monoclonal antibodies produced by the hybridoma cells of step b) for specific binding activity to the polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1);
- d) culturing a hybridoma cell producing a monoclonal antibody having specific binding activity to the polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) in a medium to proliferate and/or to secrete said monoclonal antibody; and
- e) recovering the monoclonal antibody from the culture supernatant.



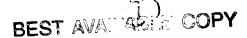
- 14. A method according to claim 13, wherein said immunocompetent mammal is a mouse.
- 15. A method according to claim 13, wherein said immunocompetent mammal is a rat.
- 16. A hybridoma cell that produces a monoclonal antibody according to claim 1.
- 17. A method for preparing a hybridoma that produces a monoclonal antibody according to claim 1, comprising the steps of:
- a) immunizing an immunocompetent mammal with an immunogen comprising a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) or fragment thereof;
- b) obtaining lymphocytes of the immunized immunocompetent mammal;
- c) fusing the lymphocytes with myeloma cells to form hybridoma cells; and
- d) screening monoclonal antibodies produced by the hybridoma cells of step c) for specific binding activity to the polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1);
- e) culturing a hybridoma cell of step d) that produces a monoclonal antibody having specific binding activity to the polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1).
- 18. A method of detecting VEGF-D in biological sample, comprising the step of contacting the sample with an antibody according to claim 1, and detecting the occurrence of binding of said antibody.

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- 19. A diagnostic or prognostic test kit for VEGF-D comprising an antibody according to claim 1 and means for detecting binding of said antibody.
- 20. A pharmaceutical composition, comprising an antibody according to claim 1, and a pharmaceutically acceptable carrier or adjuvant.
- 21. A method for preparing a monoclonal antibody according to claim 7, comprising the steps of:
- a) immunizing an immunocompetent mammal with an immunogen comprising a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) or fragment thereof;
- b) fusing lymphocytes of the immunized immunocompetent mammal with myeloma cells to form hybridoma cells;
- c) screening monoclonal antibodies produced by the hybridoma cells of step b) for VEGF-D interfering activity;
- d) culturing the hybridoma cells producing monoclonal antibodies of step c) having VEGF-D interfering activity to proliferate and/or to secrete said monoclonal antibody; and
- e) recovering the monoclonal antibody from the culture supernatant.
- 22. A method according to claim 21, wherein said immunocompetent mammal is a mouse.
- 23. A method according to claim 21, wherein said immunocompetent mammal is a rat.
- 24. A hybridoma cell that produces a monoclonal antibody according to claim 7.

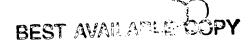


- 25. A method for preparing a hybridoma that produces a monoclonal antibody according to claim 7, comprising the steps of:
- a) immunizing an immunocompetent mammal with an immunogen comprising a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) or fragment thereof;
- b) obtaining lymphocytes of the immunized immunocompetent mammal;
- c) fusing the lymphocytes with myeloma cells to form hybridoma cells; and
- d) screening monoclonal antibodies produced by the hybridoma cells of step c) for VEGF-D interfering activity;
- e) culturing a hybridoma cell of step d) that produces a VEGF-D-interfering monoclonal antibody.
- 26. A method of interfering with at least one biological activity induced by VEGF-D selected from vascular permeability, endothelial cell proliferation, angiogenesis, lymphangiogenesis and endothelial cell differentiation, comprising the step of administering an effective biological activity interfering amount of an antibody according to claim 7.
- 27. A method of interfering with at least biological activity selected angiogenesis, from lymphangiogenesis and neovascularization in mammal, comprising the step of administering to said mammal an effective angiogenesis, lymphangiogenesis neovascularization interfering amount of an antibody according to claim 7.
- 28. A method of interfering with at least one biological activity selected from angiogenesis, lymphangiogenesis and neovascularization in a disease in a



mammal selected from the group of cancer, diabetic retinopathy, psoriasis and arthopathies, comprising the step of administering to said mammal an effective angiogenesis, lymphangiogenesis or neovascularization interfering amount of an antibody according to claim 7.

- 29. A method of detecting VEGF-D in biological sample, comprising the step of contacting the sample with an antibody according to claim 7, and detecting the occurrence of binding of said antibody.
- 30. A method of modulating vascular permeability in a mammal, said method comprising administering to said mammal an effective vascular permeability modulating amount of an antibody according to claim 7.
- 31. A diagnostic or prognostic test kit for VEGF-D comprising an antibody according to claim 7 and means for detecting binding of said antibody.
- 32. A method for treating fluid accumulation in the heart and/or lung due to increases in vascular permeability in a mammal, said method comprising administering to said mammal an effective vascular permeability decreasing amount of an antibody according claim 7.
- 33. A pharmaceutical composition, comprising an antibody according to claim 7, and a pharmaceutically acceptable carrier or adjuvant.
- 34. A composition of matter comprising an antibody which interferes with the binding of VEGF-D to the VEGF receptor-3, wherein said antibody is a monoclonal antibody or a $F(ab')_2$, F(ab'), F(ab) fragment or chimeric antibody thereof.



- 35. A composition of matter according to claim 34, wherein said antibody is a humanized antibody.
- 36. A composition of matter according to claim 34, wherein said antibody is MAb 4A5 or a $F(ab')_2$, F(ab') or F(ab) fragment thereof.
- 37. A pharmaceutical composition for interfering with a biological activity induced by VEGF-D, comprising an antibody according to claim 34, and a pharmaceutically acceptable carrier or adjuvant.
- 38. A method for imaging of lymphatic vasculature in tissue, comprising the step of contacting the tissue with an antibody of claim 34, and detecting the occurrence of binding of said antibody.
- 39. A method for preparing a monoclonal antibody according to claim 34, comprising the steps of:
- a) immunizing an immunocompetent mammal with an immunogen comprising a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) or fragment thereof;
- b) fusing lymphocytes of the immunized immunocompetent mammal with myeloma cells to form hybridoma cells;
- c) screening monoclonal antibodies produced by the hybridoma cells of step b) for VEGF-D binding interfering activity;
- d) culturing the hybridoma cells producing monoclonal antibodies of step c) having VEGF-D binding interfering activity in a medium to proliferate and/or to secrete said monoclonal antibody; and
- e) recovering the monoclonal antibody from the culture supernatant.



- 40. A hybridoma cell that produces a monoclonal antibody according to claim 34.
- 41. A method for preparing a hybridoma that produces a monoclonal antibody according to claim 34, comprising the steps of:
- a) immunizing an immunocompetent mammal with an immunogen comprising a polypeptide having the amino acid sequence as set forth in Figure 1 (SEQ ID NO:1) or fragment thereof;
- b) obtaining lymphocytes of the immunized immunocompetent mammal;
- c) fusing the lymphocytes with myeloma cells to form hybridoma cells;
- d) screening monoclonal antibodies produced by the hybridoma cells of step c) for VEGF-D binding interfering activity; and
- e) culturing a hybridoma cell of step d) that produces a VEGF-D binding interfering monoclonal antibody.
- 42. A method for identifying a compound which interferes with the interaction between VEGFR-3 and VEGF-D, comprising the steps of:
- a) applying a polypeptide having an extracellular domain of VEGFR-3 to a substrate,
- b) incubating the substrate of step a) with VEGF-D in the presence of the compound to be identified, and
- c) detecting for interaction between VEGFR-3 and VEGF-D.
- 43. A composition of matter comprising an antibody which is cross-reactive with both VEGF-D and VEGF-C.
- 44. A composition of matter according to claim 43, wherein said antibody is a humanized antibody.

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Attorney Docket No. 1064/44660

45. A composition of matter according to claim 43, wherein said antibody is MAb 4E10 or a $F(ab')_2$, F(ab') or F(ab) fragment thereof.